U.S. Patent Appln. No.: 10/585,693

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

 (currently amended): A transgenic bird which is obtained as a G1 transgenic bird or an offspring thereof by:

a) incubating a fertilized avian egg to form an early embryo; a)

b) __microinjecting, into the early embryo thereof at a stage except for and after the blastodermie stage just after egg laying, a replication-deficient retroviral vector coding for a desired protein an antibody into the early embryo, wherein the microinjection occurs at least 24 hours after the start of the incubation;

- b) allowing the egg to hatch out to thereby obtain a G0 transgenic chimeric bird; and
- mating the G0 transgenic chimeric bird with another G0 transgenic chimeric bird or an offspring thereof or with a wild-type bird;

wherein the <u>antibody content</u> is <u>not lower than 5μg/ml in blood</u>, <u>not lower than 1μg/ml in egg white</u>, and <u>not lower than 1μg/ml in egg yolkearly embryo is at least 24 hours after the start of incubation</u>.

2. (canceled).

(currently amended): The transgenic bird according to Claim 2Claim 1, wherein
the microinjection of the early embryo is-occurs at least 48 hours after the start of the incubation.

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4. (canceled).

5. (currently amended): The transgenic bird according to Claim 1, wherein the

bird is a chicken or a quail.

6. (currently amended): A transgenic bird, which is a G2 transgenic bird or an

offspring thereof obtained by mating the G1 transgenic bird according to Claim 1 with a G0

transgenic bird, another G1 transgenic bird or an offspring thereof, or with a wild-type bird.

7. (withdrawn - currently amended): A method for constructing a G1 transgenic

bird, which comprises incubating a fertilized avian egg,

a) microinjecting, into the early embryo thereof at a stage except for and after the

blastodermic stage just after egg laying, a replication-deficient retroviral vector coding for a

desired protein,

b) allowing the egg to hatch out to thereby obtain a G0 transgenic chimeric bird, and

c) mating the G0 transgenic chimeric bird with another G0 transgenic chimeric bird

or an offspring thereof or with a wild-type bird.

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8. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 7,-wherein the early embryo is at least 24 hours after the start of

incubation.

9. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 8, wherein the early embryo is at least 48 hours after the start of

incubation.

10. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 7, wherein the desired protein is an antibody.

11. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 7,-wherein the bird is a chicken or a quail.

12. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 7_which comprises microinjecting a replication-deficient retroviral

vector having a titer of not lower than 1 x 107 cfu/ml.

13. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 12, -which comprises microinjecting a replication-deficient retroviral

vector having a titer of not lower than 1 x 109 cfu/ml.

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14. (withdrawn - currently amended): A method for constructing a transgenic bird,

which comprises mating the G1 transgenic bird according to Claim 1 with a G0 transgenic bird,

another G1 transgenic bird or an offspring thereof or with a wild-type bird to construct a G2

transgenic bird or an offspring thereof.

15. (withdrawn - currently amended): A method for producing a protein_-which

comprises extracting a desired protein from somatic cells, blood or eggs from a transgenic bird

constructed by the method according to Claim 7.

16. (withdrawn - currently amended): A method for sorting out a reproductive

lineage transgenic chimeric bird, -which comprises collecting sperm samples from transgenic

birds according to Claim 1 and testing them for the gene in the sperm.

17. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 7, wherein the replication-deficient retroviral vector is a vector derived

from Moloney murine leukemia virus.

18. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 7,-wherein the replication-deficient retroviral vector is VSV-G

pseudotyped.

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19. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 7, wherein the replication-deficient retroviral vector contains a non-

retrovirus-derived gene.

20. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 19, wherein the non-retrovirus-derived gene is controlled under the

chicken β-actin promoter.

21. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 19, -wherein the non-retrovirus-derived gene codes an antibody.

22. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 21,-wherein the antibody is a chimeric antibody.

23. (withdrawn - currently amended): The method for constructing a transgenic

bird according to Claim 22, -wherein the chimeric antibody is scFv-Fc antibody.

24-27. (canceled).

28. (withdrawn - currently amended): A method for sorting out a reproductive

lineage transgenic chimeric bird, which comprises incubating a fertilized avian egg,

microinjecting, into the early embryo thereof at a stage except for and after the blastodermic

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stage just after egg laying, a replication-deficient retroviral vector coding for a desired protein and confirming the gene coding for the desired protein in the sperm of the male G0 transgenic

bird obtained by hatching.

(withdrawn - currently amended): A method for sorting out a transgenic bird,

which comprises confirming the expression of the desired protein in the blood of the transgenic

bird according to Claim 1.

30. (withdrawn - currently amended): A method for sorting out a G0 transgenic

chimeric bird_-which comprises incubating a fertilized avian egg, microinjecting, into the early

embryo thereof at a stage except for and after the blastodermic stage just after egg laving, a

replication-deficient retroviral vector coding for a desired protein and confirming the expression

of the desired protein in the blood of the G0 transgenic bird obtained by hatching.

31. (new): The transgenic bird according to Claim 1, wherein the antibody is a scFv-

Fc antibody, and wherein the scFv-Fc antibody content is not lower than 20µg/ml in blood, not

lower than 5µg/ml in egg white, and not lower than 1µg/ml in egg yolk.